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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/544,282	08/07/2006	Vijay Kamalakant Gadkari	60300-USA	9940
Paul A Fair FMC Corporation Patent Administrator 1735 Market Street Philadelphia, PA 19103				
7590 08/31/2010				
EXAMINER MAEWALL, SNIGDHA				
ART UNIT PAPER NUMBER				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/544,282

Applicant(s)

GADKARI ET AL

Examiner

Snigdha Maewall

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6-8,10 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-8,10 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 06/14/10

DETAILED ACTION

Summary

1. Receipt of Applicant's arguments/Remarks and IDS filed on 06/14/10 is acknowledged.

Claims 2, 5, 9 and 11-21 have been cancelled.

Claims **1, 3-4, 6-8, 10 and 22** are under consideration.

The following rejections are necessitated by claim amendments.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-4, 6-8, 10 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemi et al. (USP 6,342,205) in view of Masters et al. (USP 5,601,803) and further in view Venables et al. (USP 6,037,380) and FR2625676, presented in IDS).

Niemi teaches high water content dentifrice composition (tooth paste) comprising

water content greater than 50 % by weight, Abstract. The abrasive is in amount of 8 to 18% by weight, silica thickener in amount 8 to 15% by weight, binder in about 0.5% to about 1.5%, polyol humectant in about 1% to about 20%, see column 2, lines 35-45. Table 1 teaches zeodent 165 (claimed as silica abrasive) and zeodent 113 (claimed as thickener silica). Flavor is included in table 1. Polyethylene glycol is added to the composition (reads on surfactant) in column 2, lines 5-7. Sodium lauryl sulfate is added to the composition (see table 1). The reference teaches utilization of cellulose gum, xanthan gum, carrageenan etc. in column 5, lines 55-60. Niemi also teaches binders which are gum thickeners and is selected from cellulose gum, xanthan CMC which is utilized to provide cohesion to the composition, see column 6, lines 1-4. The reference teaches that other adjuvants and additives and materials can be added to the dentifrice, see column 6, lines 40-50.

Niemi also does not teach microcrystalline cellulose and the claimed viscosities.

Masters teaches silica dentifrice comprising microcrystalline cellulose which provides less stringiness to dentifrice, Abstract. Masters teaches thickener sylox in 2.5% by weight amount which falls within the claimed (less than 15%) and shows viscosity in the range of 39-175 cps initial viscosity, See column 2, lines 16-22. Masters teaches cellulose gels are those sold by FMC corporation such as Avicel (thus colloidal microcrystalline cellulose). The viscosity disclosed is 1250 cps in column 2.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate microcrystalline cellulose in the teachings of Niemi et al. to reduce stringiness of the composition motivated by the teachings of Masters et al.

Masters teaches thickener sylox in 2.5% by weight amount and viscosity of microcrystalline cellulose from 39-175cps. (Microcrystalline cellulose is known in the art as abrasive and gelling agent). Experimentation to obtain optimum and workable range of viscosity of the formulation would have been obvious to one of ordinary because Niemi teaches use of binders such as xanthan gum carrageenan and cellulose etc. as binders which are known in the art as gelling agents and viscosity modifying agents, therefore modification of viscosity would be within the purview of skilled artisan absent evidence of unexpected results shown by applicants.

The references discussed above do not teach the claimed amount of microcrystalline cellulose (colloidal and non colloidal microcrystalline cellulose).

Venables teaches use of microcrystalline cellulose as binder, flow aid and modified microcrystalline cellulose can be modified to produce colloidal microcrystalline cellulose which acts as suspension stabilizer and texturizer, see column 1, lines 39-60, 14-24 in column 2. The amount used is from 0.05 to 5 percent, see column 6, lines 57-60. The reference teaches application in dental art in column 7, lines 11-12.

FR2625676 teaches utilization of avicel PH 105 which is non colloidal microcrystalline cellulose and is hydrophilic but non-gelling agent, these are different from the ones used for gelling agents; the reference teaches use of low and high abrasive along with use of avicel PH 105, non-colloidal microcrystalline cellulose produces better abrasive and cleaning action, see page 5, 3rd paragraph, page 6, the table and page 15, last paragraph.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized low amount of colloidal microcrystalline cellulose in the teachings of Niemi and Masters et al. in order to have reduced gelling properties and stabilized texture motivated by the teachings of Venables et al. and it would have been further obvious to have utilized non colloidal microcrystalline cellulose in the teachings of Niemi and Masters et al. to obtain less abrasive with better cleaning properties of a composition motivated by the teachings of FR reference. As such utilization of optimum workable ranges of abrasive, colloidal and non colloidal microcrystalline cellulose to provide less viscosity, better rheology texture and less abrasive and more cleaning properties would have been within the skill of an artisan at the time of instant invention based on the teachings of prior art. From the teachings of the reference, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Cited as Interest

USP 6159446, USP 4,743, 274 and JP 61015826 (80,000cps viscosity due to gelling agents) have been cited as of interest to show how binders such as xanthan, carrageenan, CMC etc. change viscosity.

Response to Arguments

4. Applicant's arguments with respect to claim 1, 3-4, 6-8, 10 and 22 have been considered but are moot in view of the new ground(s) of rejection.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Snigdha Maewall whose telephone number is (571)-272-6197. The examiner can normally be reached on Monday to Friday; 8:30 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frederick Krass can be reached on (571) 272-0580. The fax phone number for the organization where this application or proceeding is assigned is 571-273-0580. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Snigdha Maewall
Art Unit 1612
/Gollamudi S Kishore/
Primary Examiner, Art Unit 1612